REMARKS

The Non-final Office Action, mailed June 12, 2007, considered claims 1–10, 12–36, and 41–42. Claim 9 is objected to because of minor informalities. Claims 1–10, 12–36, and 41–42 were rejected under 35 U.S.C. § 102(e) as being anticipated by Hartmann et al., U.S. Patent No. 6,505,342 (filed May 31, 2000) (hereinafter Hartmann). Claims 1, 9–10 and 36 were rejected under 35 U.S.C. § 102(e) as being anticipated by Desai, U.S. Patent No. 6,968,291 (filed Nov. 4, 2003) (hereinafter Desai).[1]

By this response, claims 1, 6–10, 30 are amended such that claims 1–10, 12–36, and 41–42 remain pending. Claims 1 and 10 are independent claims which remain at issue. Support for the amendments may be found within Specification ¶ 32.[2]

As reflected in the claims, the present invention is directed generally toward providing a health model for software. Claim 10 recites, for instance, in combination with all the elements of the claim, a method for building a health model of a software component. The method includes creating an inventory of instrumentation of the software component and mapping each individual instrumentation in the inventory of instrumentation to a state of operation of the software component before the instrumentation is generated. Each individual instrumentation in the inventory of instrumentation is also mapped to a state of operation of the software component after the instrumentation is generated. The inventory is analyzed to identify instrumentation that result in the same transition from one state of operation of the software component to another state of operation of the software component. The method includes grouping the identified instrumentation that result in the same transition from one state of operation of the software component to another state of operation of the software component by filtering the instrumentation based upon the state of the operation of the software component before instrumentation was generated and the state of operation after the instrumentation was generated. The method also includes generating a health model using the states of operation and at least one

---

[1] Although the prior art status of the cited art is not being challenged at this time, Applicants reserve the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

[2] However, it should be noted that the present invention and claims as recited take support from the entire Specification. As such, no particular part of the Specification should be considered separately from the entirety of the Specification.

transition representing a group of instrumentation from one state of operation of the software component to another state of operation of the software component. Independent claim 1 has been amended to recite a computer system embodiment of the method of claim 10.

Independent claims 1 and 10 were rejected under 35 U.S.C. § 102(e) as being anticipated by Hartmann and were also rejected under 35 U.S.C. § 102(e) as being anticipated by Desai. The Applicants submit, however, that neither Hartman nor Desai teach each and every element of the invention as now recited in the claims. Further, the Applicants submit that Hartman and Desai fail to show the elements of the independent claims being arranged as required by the claims.

In Particular, in addition to other distinctions, Hartman and Desai fail to teach mapping each individual instrumentation in the inventory of instrumentation to a state of operation of the software component before the instrumentation is generated. Further, Hartman and Desai fail to teach mapping each individual instrumentation in the inventory of instrumentation to a state of operation of the software component after the instrumentation is generated. Additionally, Hartman and Desai fail to teach grouping the identified instrumentation that result in the same transition from one state of operation of the software component to another state of operation of the software component by filtering the instrumentation based upon the state of the operation of the software component before instrumentation was generated and the state of operation after the instrumentation was generated.

The office action did assert that Hartman teaches an instrumentation analyzer comprising an application that groups the instrumentation events by filtering the instrumentation based upon the state of the software component before the occurrence of instrumentation and the state of the software component after the occurrence of instrumentation[3] and office action asserted that Hartman teaches a step of analyzing the inventory to group instrumentation comprising filtering the instrumentation based upon the state of the software component before the occurrence of instrumentation and the state of the software component after the occurrence of instrumentation.[4]

Notably, however, the office action cited two distinct portions of Hartman for the above very similar claim elements. For an instrumentation analyzer comprising an application that groups the instrumentation events by filtering the instrumentation based upon the state of the

[3] Office Communication p. 5 (paper no. 20070605) (mailed June 12, 2007).
[4] Office Comm. p. 9.

software component before the occurrence of instrumentation and the state of the software component after the occurrence of instrumentation, the office action cited:

> "Each row specifies a decision rule or a group of decision rules. For every applied rule, column 8 (607) shows the new transitions for the composed state machine and column 9 (608) gives the target states for the new transitions. The rules cover 128 different combination possibilities for the transitions. Several rules cover more than one combination. Fields that are ignored are shown by an asterisk (*). These different combinations do not affect the results. Other fields give possible choices and stand for multiple rules. The results are dependent upon these choices. In such a case, the same choice is used for creating the result. The origin of the choice is indicated by T1 for the transition of FSM A and T2 for the transition of FSM B. The second column shows the number of combinations of one row. The sum of all combinations is 128. Because division of the combination to the rules is disjunctive, all possible combinations are covered exactly once. The decision table defines a mathematically complete relation."[5]

In contrast, for the step of analyzing the inventory to group instrumentation comprising filtering the instrumentation based upon the state of the software component before the occurrence of instrumentation and the state of the software component after the occurrence of instrumentation, the office action cited:

> "FIG. 6 shows a decision table (600) for the reachability computation that results in new global states and transitions. The processed source state machines or finite state machines (FSM) are A and B, the currently processed global state within the composition of A and B is (s1, s2). It is composed of the two part states s1 and s2, where s1 is a state of FSM A and s2 is a state of FSM B. The decision table is consecutively used for every possible combination of outgoing transitions of s1 and s2. The decision table considers the following: FSM A has a transition s1.fwdarw.t1 (605). The transition has a transition type (one of SEND, RECV, INT, COMM), a connection name and an event name. FSM B has a transition

[5] Hartmann col. 12 ll. 4–21.

> s2.fwdarw.t2 (610). The transition also has a transition type, a connection name and an event name. If a transition type is internal (INT), the connection name and the event name can be ignored. Connections are named connA and connB for the respective FSM and event names are named eventA and eventB. If the connection and event are the same, they are just named connection and event. The decision table distinguishes if connections of one FSM are to the other FSM or external. Different connections between the same two source components are possible and are treated similarly.
>
> "The creation of new states and transitions is restricted where one of the part states is marked as intermediate state and the other is not. In this case, only transitions originating from the intermediate state are considered and inserted into the composed state machine. Communication transitions are created, if possible."[6]

The Applicants submit that a careful review of Hartmann reveals that neither cited portion of Hartmann, quoted above, nor the entirety of Hartmann teaches such filtering based upon the state of the software component before and the state of the software component after the occurrence of instrumentation. Notably, Hartmann fails to teach any filtering based upon state at all.

As particularly pointed out above, both Hartmann and Desai fail to teach each and every element of the invention as recited in the independent claims 1 and 10. Accordingly, a rejection under 35 U.S.C. § 102(e) in view of Hartmann would be improper and a rejection under 35 U.S.C. § 102(e) in view of Desai would be improper. As such, rejections of claims in view of both Hartmann and Desai should be withdrawn. The Applicants correspondingly and respectfully request the rejections be withdrawn and further respectfully request favorable reconsideration.

In view of the foregoing, Applicants respectfully submit that the other rejections to the claims are now moot and do not, therefore, need to be addressed individually at this time. It will be appreciated, however, that this should not be construed as Applicants acquiescing to any of the purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice. Instead, Applicants reserve the right to challenge any

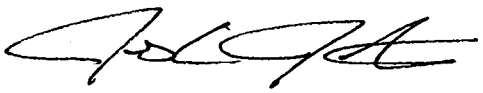
[6] Hartmann col. 11 ll.32–60.

of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicants specifically request that the Examiner provide references supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney 801-533-9800.

Dated this 12th day of September, 2007.

Respectfully submitted,



RICK D. NYDEGGER
Registration No. 28,651
JENS C. JENKINS
Registration No. 44,803
Attorneys for Applicant
Customer No. 47973

RDN/JCJ/TMB:kjb:ahy
AHY0000005816V001